

Maceda, Rafael  
2016-01337  
CoE 197S

## Feature Activity 04

### A. Getting set-up

```
C:\Users\Rafael\Desktop\Academics\CoE197\ME8_Containerization_and_Docker\3-building_images>docker login
Authenticating with existing credentials...
time="2021-06-19T13:48:28+08:00" level=error msg="(35a1c95a) 5506496c-CredentialHelperPKG C<-S No response POST /
registry/credstore-updated\": context deadline exceeded (Client.Timeout exceeded while awaiting headers)[[STACK]]
time="2021-06-19T13:48:29+08:00" level=error msg="(9655c503) 5506496c-CredentialHelperPKG C<-S No response POST /
registry/credstore-updated\": context deadline exceeded (Client.Timeout exceeded while awaiting headers)[[STACK]]
Login Succeeded
```

### B. Finding images

Use the `docker search` command to search for new images:

```

$ docker search kafka
NAME                                DESCRIPTION
STARS      OFFICIAL    AUTOMATED
wurstmeister/kafka                 Multi-Broker Apache Kafka Image
319                                     [OK]
spotify/kafka                     A simple docker image with both
Kafka and ...      200                                     [OK]
ches/kafka                     Apache Kafka. Tagged versions.
JMX. Cluste...      70                                     [OK]
sheepkiller/kafka-manager        kafka-manager
61                                     [OK]
$
```

Once you found an image you like, you can pull it locally with `docker pull`, covered in the "Running Containers" exercise.

```

sheepkiller/kafka-manager      kafka-manager                204          [OK]
kafkamanager/kafka-manager    Docker image for Kafka manager 125          [OK]
ches/kafka                     Apache Kafka. Tagged versions. JMX. Cluster-... 117          [OK]
hlebalbau/kafka-manager       CMAK (previous known as Kafka Manager) As Do... 83           [OK]
landoop/kafka-topics-ui        UI for viewing Kafka Topics config and data ... 36           [OK]
johnnypark/kafka-zookeeper     Kafka and Zookeeper combined image             23
solsson/kafka                  http://kafka.apache.org/documentation.html#q... 22           [OK]
debezium/kafka                 Kafka image required when running the Debezi... 21           [OK]
landoop/kafka-lenses-dev       Lenses with Kafka. +Connect +Generators +Con... 21           [OK]
danielqsj/kafka-exporter       Kafka exporter for Prometheus                   19           [OK]
landoop/kafka-connect-ui       Web based UI for Kafka Connect.                 17           [OK]
digitalwonderland/kafka        Latest Kafka - clusterable                      15           [OK]
tchiotludo/kafkaq              Kafka GUI to view topics, topics data, consu... 6            [OK]
solsson/kafka-manager          Deprecated in favor of solsson/kafka:cmak       5            [OK]
solsson/kafkacat               https://github.com/edenhill/kafkacat/pull/110  5            [OK]
solsson/kafka-consumers-prometheus https://github.com/cloudworkz/kafka-minion    4
solsson/kafka-prometheus-jmx-exporter For monitoring of Kubernetes Kafka clusters ... 4            [OK]
mesosphere/kafka-client        Kafka client                                     3            [OK]
zenko/kafka-manager            Kafka Manger https://github.com/yahoo/kafka-... 2            [OK]
zenreach/kafka-connect         Zenreach's Kafka Connect Docker Image          2
digitsy/kafka-magic            Kafka Magic Images                             2
anchorfree/kafka               Kafka broker and Zookeeper image                2

C:\Users\Rafael\Desktop\Academics\CoE197\ME8_Containerization_and_Docker\3-building_images>docker pull spotify/kafka
Using default tag: latest
latest: Pulling from spotify/kafka
886a066cd84a: Pull complete
75ea84187083: Pull complete
8a2e387eb26a: Pull complete
eaf540699244: Pull complete
1624a2f8d114: Pull complete
7018f4ec6e0a: Pull complete
5ca3bc2ad3b3: Pull complete
558810c91c6a: Pull complete
c8bd0e6d651a: Pull complete
d471f5c9f3f2: Pull complete
Digest: sha256:c8f8f760b48a07fb99df24fab8201ec8b647634751e842b67103a25a388981b
Status: Downloaded newer image for spotify/kafka:latest
docker.io/spotify/kafka:latest

C:\Users\Rafael\Desktop\Academics\CoE197\ME8_Containerization_and_Docker\3-building_images>

```

### C. Tagging Images

In the previous exercise "Building Images", we built and tagged an image as ``<DockerHub username>/ping``. If you mistagged this image with something other than your DockerHub user name, it's no problem: we can re-tag it.

Just use ``docker tag`` to add a new tag with your DockerHub user name, and give it a version:

```

$ docker images
REPOSITORY                                TAG
IMAGE ID                                  CREATED                                  SIZE
ping
latest                                   a980aelc79ea                             2 minutes ago
121MB
ubuntu
16.04                                   6a2f32de169d                             5 days ago
117MB
$ docker tag ping delner/ping:1.0
$ docker images
REPOSITORY                                TAG
IMAGE ID                                  CREATED                                  SIZE
delner/ping                               1.0
a980aelc79ea                              5 minutes ago                             121MB

```

```

ping
latest          a980aelc79ea          5 minutes ago
121MB
ubuntu
16.04           6a2f32de169d          5 days ago
117MB
$

```

You can see the same image ID now maps to both the old and new tag. To remove the old tag, run `docker rmi` with the old image tag:

```

$ docker rmi ping
Untagged: ping:latest
$ docker images
REPOSITORY                                TAG
IMAGE ID                                  CREATED                                  SIZE
delner/ping                               1.0
a980aelc79ea                              6 minutes ago                          121MB
ubuntu
16.04                                     6a2f32de169d                          5 days ago
117MB
$

```

```

C:\Users\Rafael\Desktop\Academics\CoE197\ME8_Containerization_and_Docker\3-building_images>docker tag delner/ping pugay21/ping:1.0
C:\Users\Rafael\Desktop\Academics\CoE197\ME8_Containerization_and_Docker\3-building_images>docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
delner/ping    latest    c7e72f2960a8   37 minutes ago  139MB
pugay21/ping   1.0       c7e72f2960a8   37 minutes ago  139MB
<none>         <none>    9ae92f186732   41 minutes ago  170MB
<none>         <none>    bb7590d78317   43 minutes ago  170MB
ubuntu         16.04     065cf14a189c   30 hours ago   135MB
spotify/kafka  latest    a9e0a5b8b15e   4 years ago    443MB
C:\Users\Rafael\Desktop\Academics\CoE197\ME8_Containerization_and_Docker\3-building_images>_

```

You can see the same image ID now maps to both the old and new tag. To remove the old tag, run `docker rmi` with the old image tag:

```
C:\Users\Rafael\Desktop\Academics\CoE197\ME8_Containerization_and_Docker\3-building_images>docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
delner/ping          latest              c7e72f2960a8       37 minutes ago     139MB
pugay21/ping         1.0                c7e72f2960a8       37 minutes ago     139MB
<none>               <none>             9ae92f186732       41 minutes ago     170MB
<none>               <none>             bb7590d78317       43 minutes ago     170MB
ubuntu               16.04              065cf14a189c       30 hours ago       135MB
spotify/kafka        latest              a9e0a5b8b15e       4 years ago        443MB

C:\Users\Rafael\Desktop\Academics\CoE197\ME8_Containerization_and_Docker\3-building_images>docker rmi delner/ping
Untagged: delner/ping:latest

C:\Users\Rafael\Desktop\Academics\CoE197\ME8_Containerization_and_Docker\3-building_images>docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
pugay21/ping         1.0                c7e72f2960a8       38 minutes ago     139MB
<none>               <none>             9ae92f186732       42 minutes ago     170MB
<none>               <none>             bb7590d78317       44 minutes ago     170MB
ubuntu               16.04              065cf14a189c       30 hours ago       135MB
spotify/kafka        latest              a9e0a5b8b15e       4 years ago        443MB

C:\Users\Rafael\Desktop\Academics\CoE197\ME8_Containerization_and_Docker\3-building_images>
```

## D. Pushing an image

To push an image, all you need to do is call `docker push` with the tag.

```

$ docker push delner/ping:1.0
The push refers to a repository [docker.io/delner/ping]
3b372b8ab44b: Pushed
ab4b9ad8d212: Mounted from library/ubuntu
57e913ee49e5: Mounted from library/ubuntu
2ea6deead2b0: Mounted from library/ubuntu
7cbd4b94e525: Mounted from library/ubuntu
e86a0c422723: Mounted from library/ubuntu
1.0: digest:
sha256:1881fd1efdde061d3aede939b8696c0e6d0b36e9f8b38abccb1074
bc60592a60 size: 1568
$

```

```
C:\Users\Rafael\Desktop\Academics\CoE197\ME8_Containerization_and_Docker\3-building_images>docker push pugay21/ping:1.0
The push refers to repository [docker.io/pugay21/ping]
ee43d2036606: Pushed
d07b1c131bb8: Mounted from library/ubuntu
2788d2f5dd8f: Mounted from library/ubuntu
04d694391e96: Mounted from library/ubuntu
48ed8163532b: Mounted from library/ubuntu
1.0: digest: sha256:56eab9c3d40dc35e96e2f28b278d1465cdee88457a7c92ace2eb884c715d7b2d size: 1361
```